INSTALLATION MANUAL

ROPE TRACK DRIVE 1000

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ShowTex
AMAZING STAGE FABRICS IN MOTION

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INTRODUCTION

The Rope Track Drive 1000 system facilitates motion of set pieces or stage curtains on a motorized operating line threaded track system.

- This budget friendly compact track motor for basic curtain motion control is ideal for simple rope threaded operation, as used for fixed installations in theatres and venues.
- The operating line and head pully guarantee maximum grip for extremely accurate movement.
- The RTD 1000 system is equipped with an easy to use hand remote control with a **fixed speed of 40 cm/sec**. Open, stop and close the curtain whenever you prefer.
- The RTD 1000 system can also be controlled with the RTD DMX Basic module, equipped with 2 DMX channels (open & close).
- The RTD 1000 is compatible with the ShowTex H100, Showpipe, UniTrack and ShowTrack track systems.

SAFETY INSTRUCTIONS

- Read this user manual carefully
- The motion system may only be used to move curtains and screens. Never use this system to move people, animals, or any other heavy objects.
- Installation and service of the units should only be carried out by qualified technicians familiar with the system and its operation.
- Installation and operation must take place in a dry frost-free environment.
- To prevent electrocution and contact with moving parts, disable the power supply before carrying out any work on the units.
- A sudden unexpected start up of the system by not disabling the power in both the standard and RTD 1000 units creates a risk to the operator.
- Units must be installed with a corresponding earth wire with the same section as the power cable.

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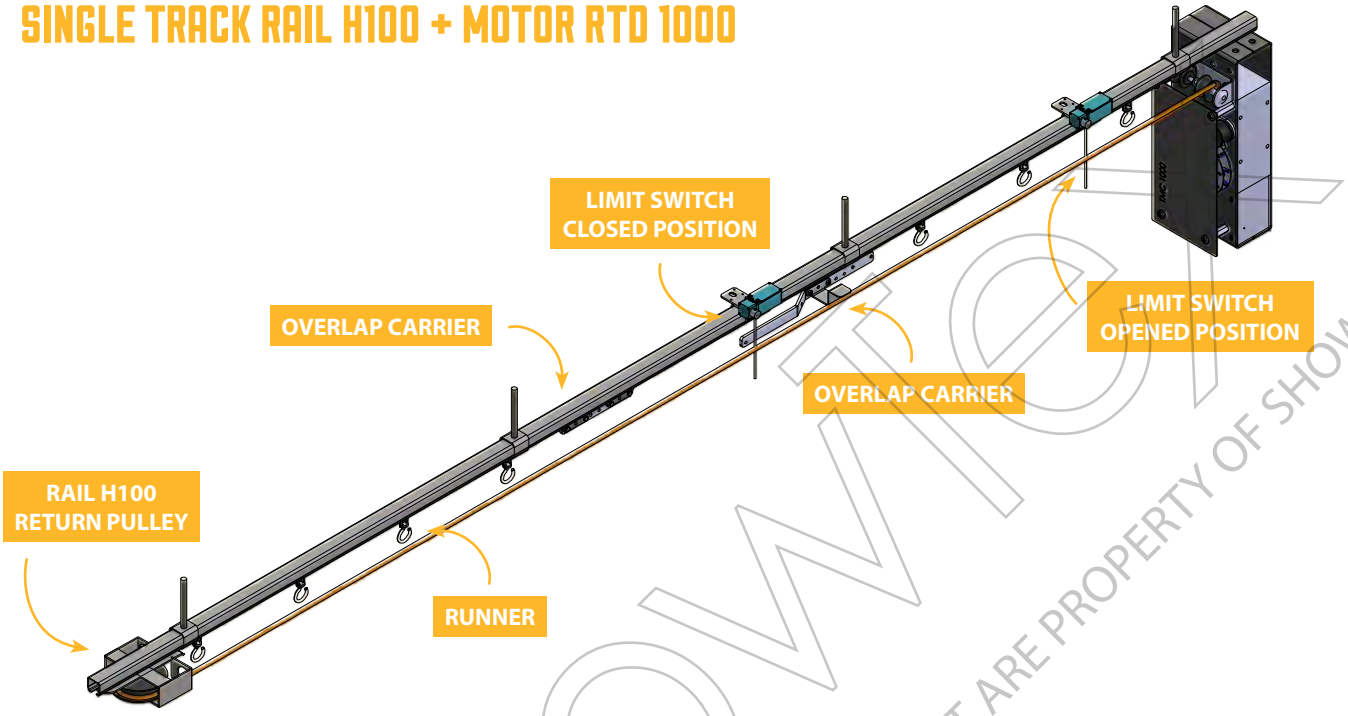
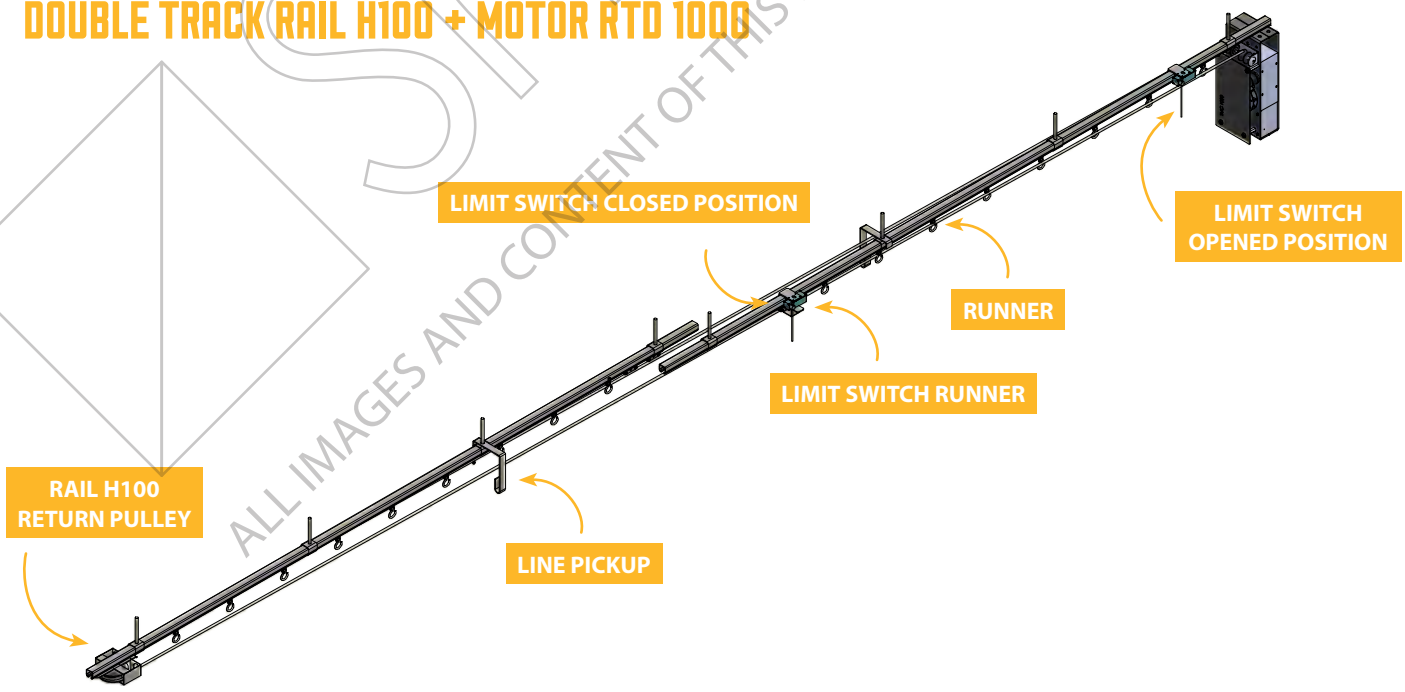
COMPONENTS

SINGLE TRACK RAIL H100 + MOTOR RTD 1000



DOUBLE TRACK RAIL H100 + MOTOR RTD 1000



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1

1x RTD 1000 motor

2

1x Remote unit RTD 1000

3

1x Power Supply Cable

4

1x Plug and play Limit Switch Set
(inc. 3G/0.75 Cable + XLR 3 Male Plug)

5

1x Link Cable

6

1x RTD 1000 DMX Basic Module

Name	Article code	Information	Use
RTD 1000 module with remote	**8050 0713 2207**		
1 RTD 1000 motor		11,8 kg • 90 W	
2 Remote unit RTD 1000			
3 Power Supply Cable		2 m	connects 1 to power supply
4 Plug and play Limit Switch set with 3G/0.75 Cable + XLR 3 Male Plug		2 pieces + made to measure cable	connects to 1
5 Link Cable		25 m	connects 1 to 2
RTD 1000 DMX Basic module with remote	**8050 0741 2207**		
1 RTD 1000 motor		11,8 kg • 90 W	
3 Power Supply Cable		2 m	connects 1 to power supply
4 Plug and play Limit Switch set with 3G/0.75 Cable + XLR 3 Male Plug		2 pieces + made to measure cable	connects to 1
5 Link Cable		25 m	connects 1 to 6
6 RTD 1000 DMX Basic Module			
DMX Cable (optional)	**8050 7220 5127**	12.5 m	connects 6 to light panel

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Optional: Plug and play Limit Switch set with extension cables

1x Plug and play Limit Switch set with 3G/0.75 Cable (20 cm) + XLR 3 Male Plug

2x Made to measure 3G/0.75 Cable + XLR 3 Male and Female Plug

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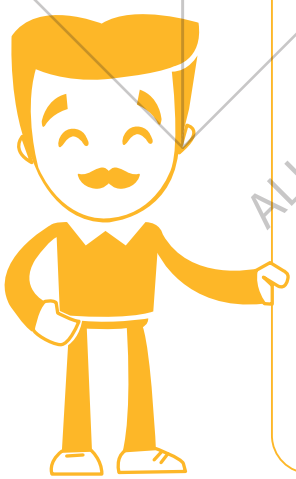
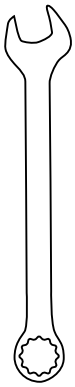
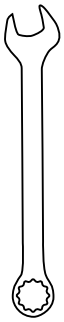
TOOLTIPS FOR EASY ASSEMBLY



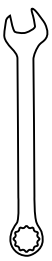
Allan Key n°3



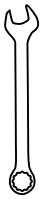
2x Wrench size 17



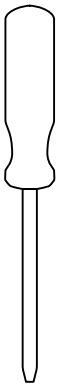
Wrench size 13



Wrench size 10



Wrench size 8



Flat Screwdriver size 5.5 x 1.0 mm

FOR THE RAIL H100 YOU WILL ALSO NEED

7

Return Pulley

8

Double Braided Rope

9

3X Rope Clamps

10

Ball Raced Runner

11

Overlap Carrier Set (single track)

12

Limit Switch Runner (double track)

13

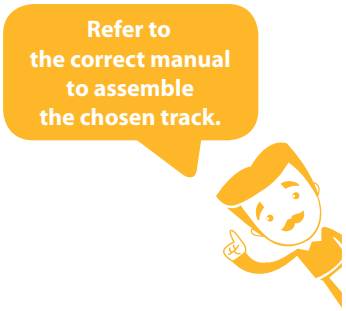
Endstop

REFER TO THE CORRECT MANUAL TO ASSEMBLE THE CHOSEN TRACK

Name	Article code	Information	Use
7 Return Pulley	8050 0410 0037	0.95 kg/piece	
8 Double Braided Rope	7530 0308 0007	0.04 kg/meter • ø 8 mm	
9 Rope clamp	8050 0248 0035	0.035 kg/piece • 3 mm thick	
10 Ball Raced Runner	8050 0205 0087	0.03 kg/piece • 8 kg capacity	
11 Overlap Carrier Set	8050 0246 0167	0.82 kg/piece • 2 pieces	
12 Limit Switch Runner	8050 0228 0167	0.12 kg/piece	
13 Endstop	8050 0050 0001	0.03 kg/piece	

THE RTD 1000 MOTOR CAN BE USED WITH :

1. Rail H100
2. ShowPipe
3. ShowTrack
4. UniTrack



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OVERVIEW SINGLE TRACK RAIL H100 + MOTOR RTD 1000

Always secure the Limit Switches on the side of the track where you hang the motor. When hanging the motor on the other side of the track, you need to completely rotate the picture.

JARDIN
STAGE RIGHT
OPPOSITE PROMPT
LINKS PUBLIEK

[tooltip]
secure the ceiling or wall bracket min. 15 cm from the end of the track to leave space for the RTD 1000

AUDIENCE

min. 15 cm

[tooltip]
leave max. 150 cm between the ceiling or wall brackets

LIMIT SWITCH CLOSED POSITION

COUR
STAGE LEFT
PROMPT SIDE
RECHTS PUBLIEK

max. 150 cm

OVERLAP CARRIER

LIMIT SWITCH OPENED POSITION

OVERLAP CARRIER

[tooltip]
define the middle of the curtain & secure a Limit Switch 10 cm from the middle and towards the motor

min. 22 cm

RUNNER

[tooltip]
secure the ceiling or wall bracket min. 22 cm from the end of the track to leave space for the Return Pulley

RAIL H100
RETURN PULLEY

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OVERVIEW DOUBLE TRACK RAIL H100 + MOTOR RTD 1000

Always secure the Limit Switches on the side of the track where you hang the motor. When hanging the motor on the other side of the track, you need to completely rotate the picture.

JARDIN
STAGE RIGHT
OPPOSITE PROMPT
LINKS PUBLIEK

[tooltip]
secure the ceiling or wall bracket min. 15 cm from the end of the track to leave space for the RTD 1000

AUDIENCE

min. 15 cm

LIMIT SWITCH CLOSED POSITION

[tooltip]
leave max. 150 cm between the ceiling or wall brackets

COUR
STAGE LEFT
PROMPT SIDE
RECHTS PUBLIEK

max. 150 cm

LIMIT SWITCH OPENED POSITION

LIMIT SWITCH RUNNER

LINE PICKUP

RUNNER

[tooltip]
define the middle of the curtain & secure a Limit Switch 10 cm from the middle and towards the motor

min. 22 cm

[tooltip]
secure the ceiling or wall bracket min. 22 cm from the end of the track to leave space for the Return Pulley

RAIL H100
RETURN PULLEY

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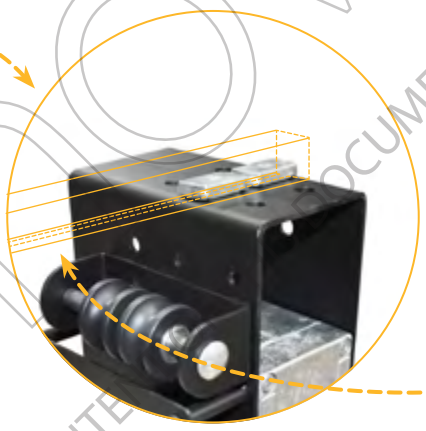
ASSEMBLY

1 PUT THE BOLTS AND ROPE GUIDING WHEELS IN THE RIGHT POSITION ON THE MOTOR

2 INSERT THE ENDSTOP INTO THE RAIL BEFORE SLIDING THE MOTOR INTO THE RAIL



The endstop stops the curtain from moving to far. Secure it in front of the motor.

3 SECURE THE MOTOR TO THE RAIL

For track installation instructions please refer to individual track manuals. We used the Rail H100.

[tooltip]
use a wrench13
to secure the bolts

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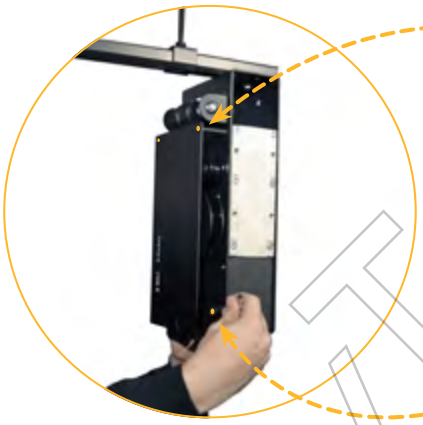
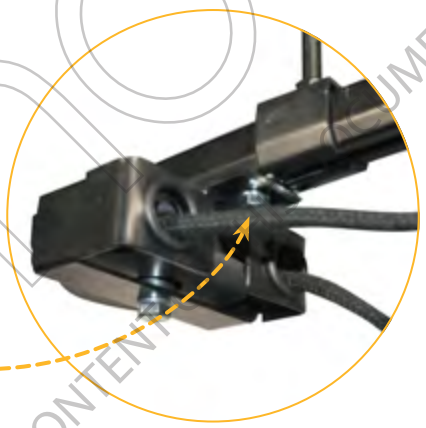
4 REMOVE THE PLATE TO REVEAL THE ROPE THREADING DEVICE



[tooltip]
use an alan key 3
to unscrew the bolts

[tooltip]
use a wrench 8
to unscrew the bolts

5 INSERT THE RUNNERS AND MASTER CARRIERS INTO THE RAIL
SECURE THE RETURN PULLEY ON THE END OF THE RAIL, OPPOSITE TO THE MOTOR



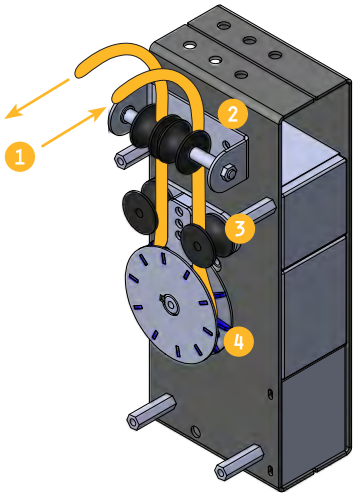
[tooltip]
use a wrench13
to secure the bolts

For track installation instructions please refer to individual track manuals. Depending on the rail or track the Return Pulley can have a different look.

6 THREAD 2/3 OF THE OPERATING LINE...

1. ... on the front side of the rail and work towards the RTD 1000 motor,
2. behind the right guide wheel that serves as a guide pulley,
3. inside the guide groove of the little wheel
4. and around the guide groove of the big wheel.

   Repeat the same steps in the other way and secure the plate back in the correct position.
5. Thread the operating line through the Return Pulley (see picture from step 6)
6. and back again towards the other end of the operating line.



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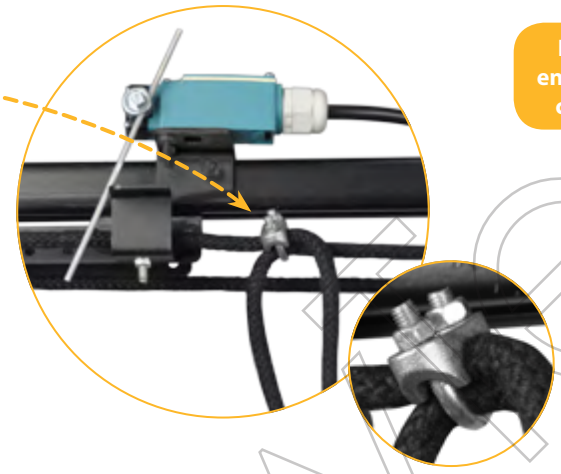
ASSEMBLY

7 CONNECT THE ROPE ENDS WITH THE ROPE CLAMB AND TIGHTEN THE ROPE

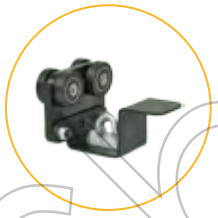
[tooltip]
use a wrench 8
to tighten the bolts



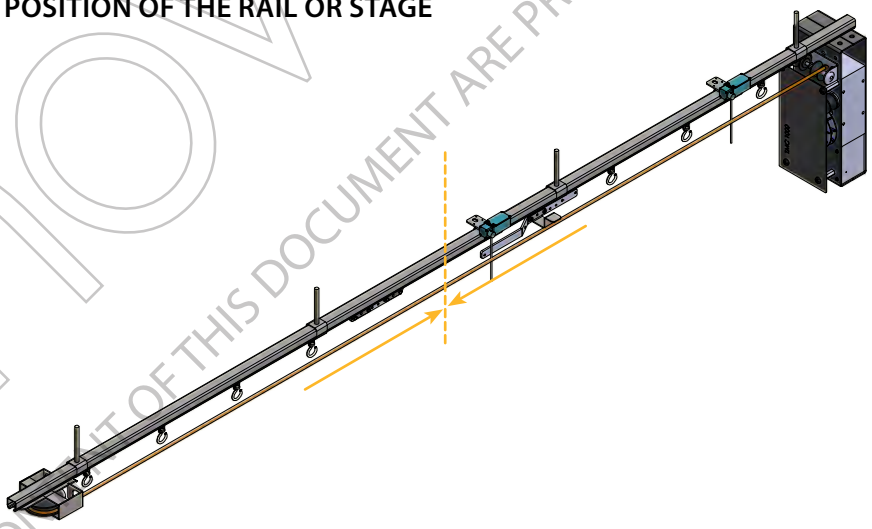
Leave the connecting ends between the master carrier and the motor.

8 BRING THE CARRIERS TO THE CENTRE POSITION OF THE RAIL OR STAGE

Overlap Carrier Set
(single track)

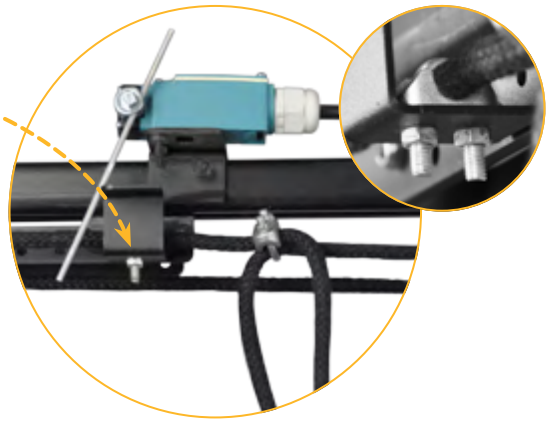


Limit Switch Runner
(double track)



9 CONNECT THE ROPE TO THE OVERLAP CARRIER OR LIMIT SWITCH RUNNER

[tooltip]
use a wrench 8
to tighten the bolts



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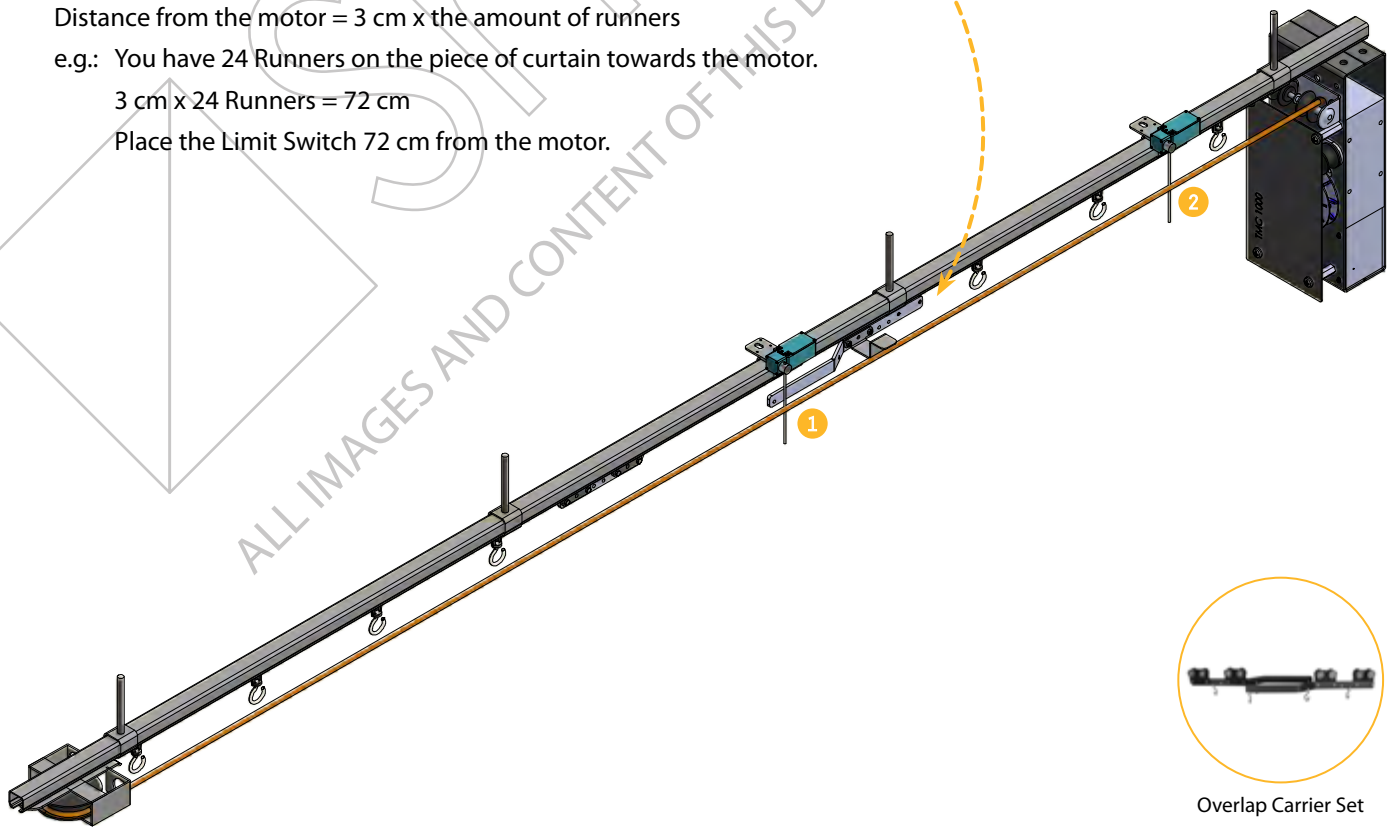
10 CONNECT THE ROPE TO THE REMAINING CARRIER AND TIGHTEN

[tooltip]
use a wrench 8
to tighten the bolts

11 INSTALL THE LIMIT SWITCHES ONTO THE SINGLE TRACK

1. Place the Limit Switch that stops the curtain when closing:
   8 cm from the centre of the track or centrestage (Overlap Carrier Set)

2. Place the Limit Switch that stops the curtain when opening:
   Distance from the motor = 3 cm x the amount of runners
   e.g.: You have 24 Runners on the piece of curtain towards the motor.
   3 cm x 24 Runners = 72 cm
   Place the Limit Switch 72 cm from the motor.



Overlap Carrier Set

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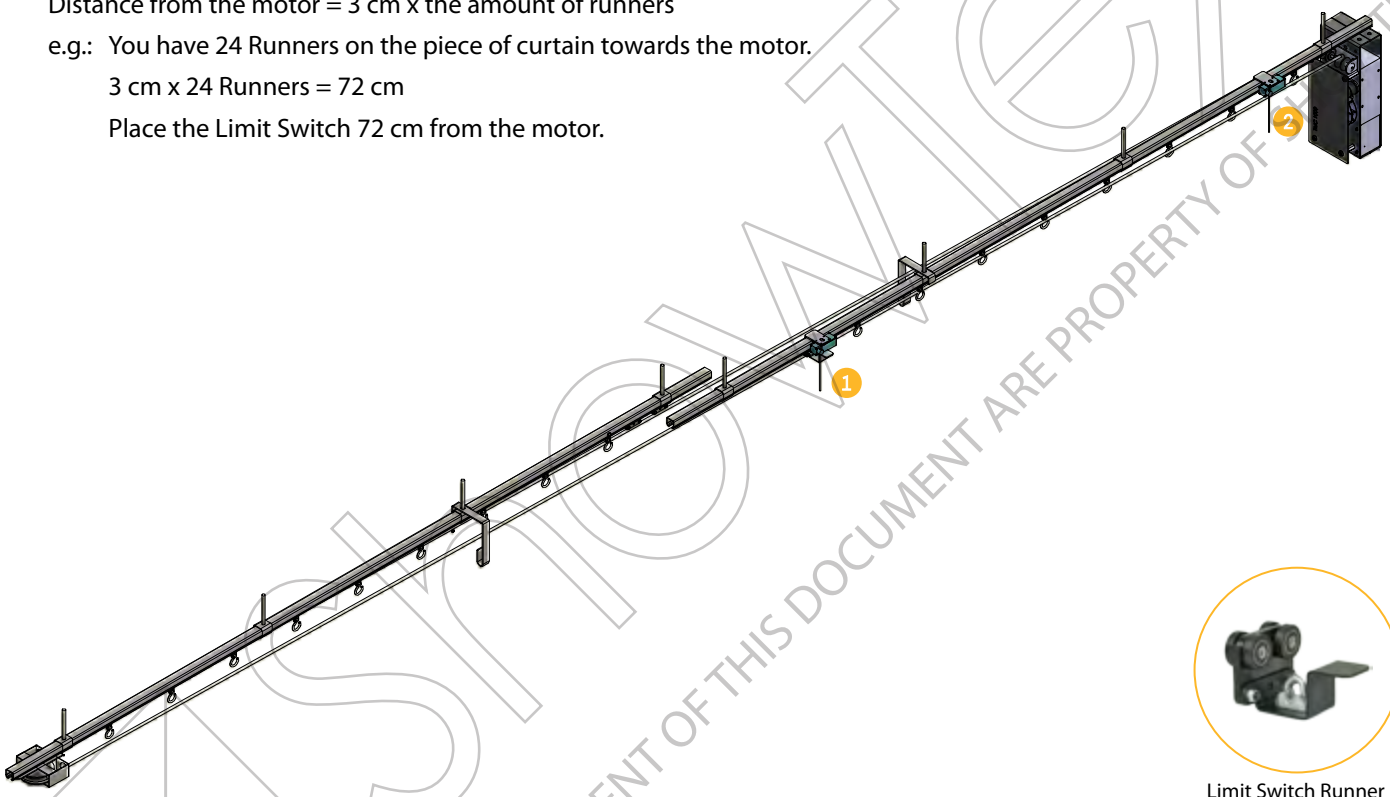
ASSEMBLY

12 INSTALL THE LIMIT SWITCHES ONTO THE DOUBLE TRACK

1. Place the Limit Switch that stops the curtain when closing:
   6 cm from the end of the track (Limit Switch Runner)

2. Place the Limit Switch that stops the curtain when opening:
   Distance from the motor = 3 cm x the amount of runners
   e.g.: You have 24 Runners on the piece of curtain towards the motor.
   3 cm x 24 Runners = 72 cm
   Place the Limit Switch 72 cm from the motor.



Limit Switch Runner

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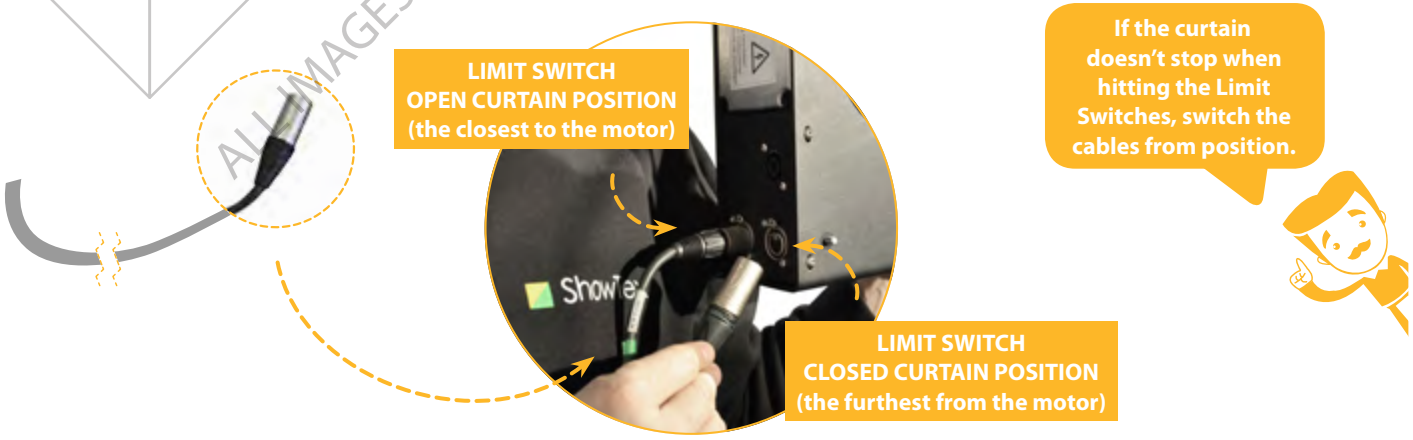
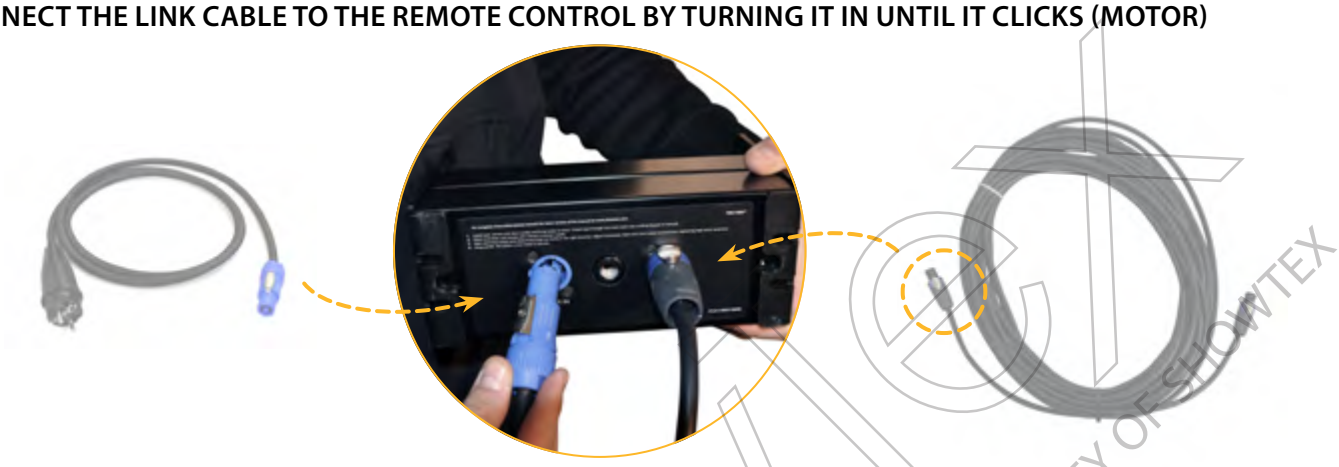
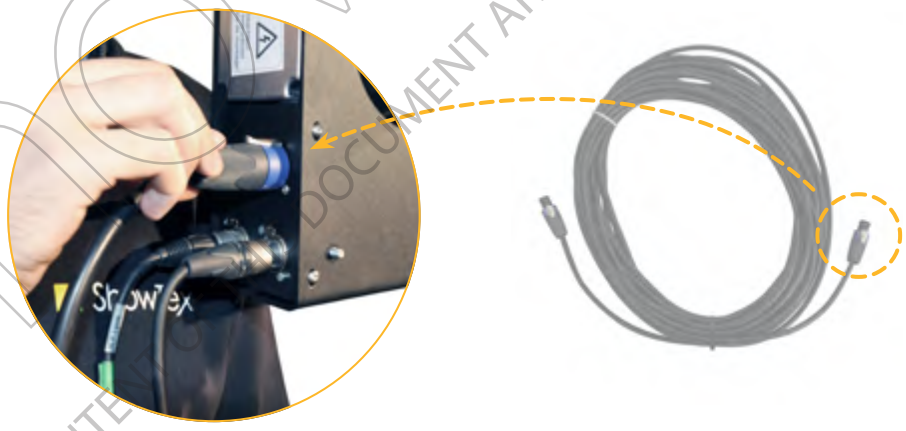
13 CONNECT THE 2 LIMIT SWITCH CABLES TO THE BACK OF THE RTD 1000 MOTOR


LIMIT SWITCH
OPEN CURTAIN POSITION
(the closest to the motor)
If the curtain doesn't stop when hitting the Limit Switches, switch the cables from position.
LIMIT SWITCH
CLOSED CURTAIN POSITION
(the furthest from the motor)

14 CONNECT THE POWER SUPPLY CABLE BY TURNING IT IN UNTIL IT CLICKS (POWER IN)
CONNECT THE LINK CABLE TO THE REMOTE CONTROL BY TURNING IT IN UNTIL IT CLICKS (MOTOR)



15 CONNECT THE REMOTE CONTROL TO THE MOTOR WITH THE OTHER END OF THE LINK CABLE



16 CONNECT THE POWER SUPPLY CABLE TO A POWER OUTLET

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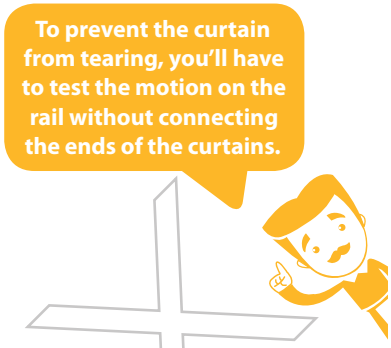
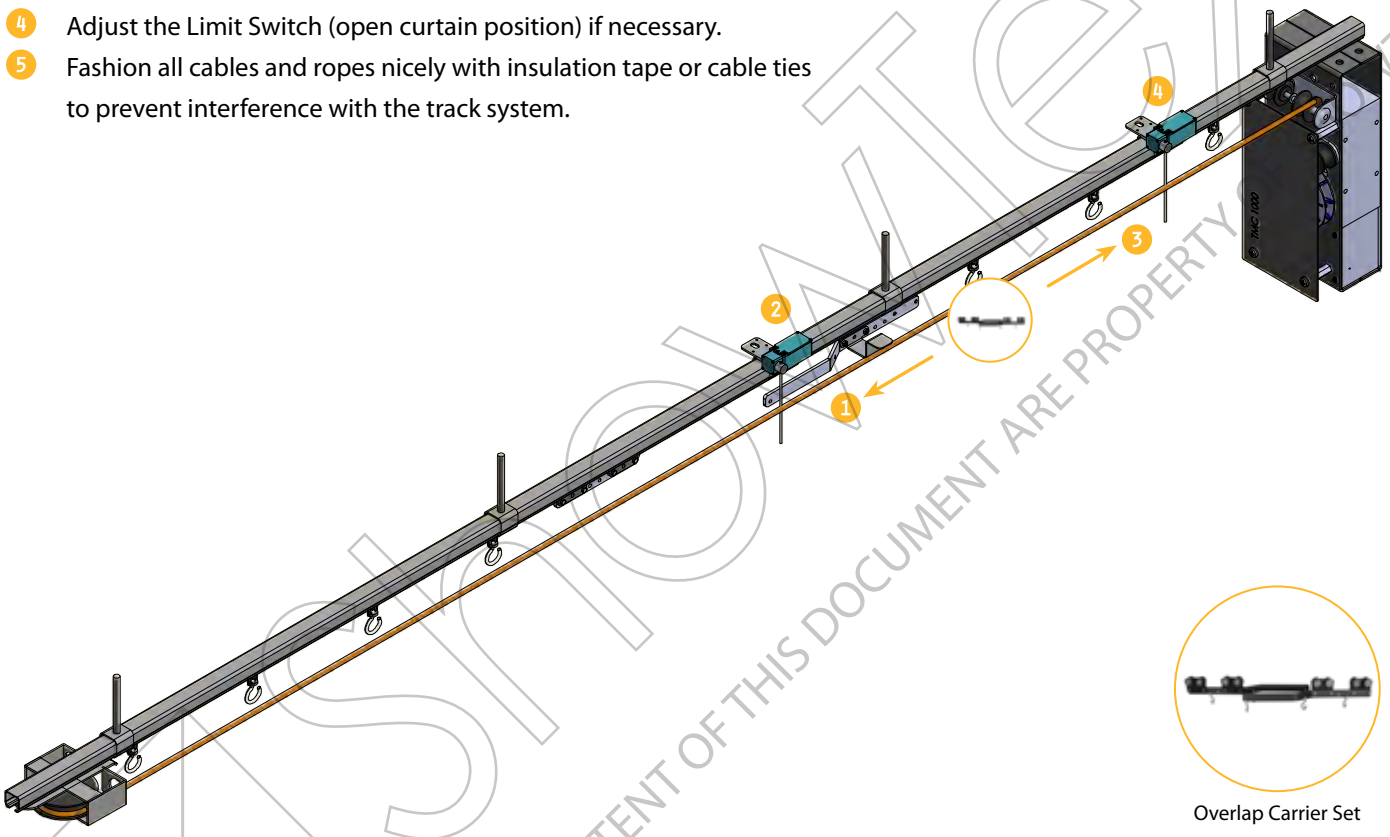
ASSEMBLY

17 TEST IF EVERYTHING IS IN THE CORRECT POSITION


To prevent the curtain from tearing, you'll have to test the motion on the rail without connecting the ends of the curtains.

1. Operate the Remote Unit and put the master carrier in the closed curtain position (centrestage or middle of the track)
2. Adjust the limit switch (closed curtain position) if necessary.
3. Operate the Remote Unit and put the Carrier in the open curtain position.
4. Adjust the Limit Switch (open curtain position) if necessary.
5. Fashion all cables and ropes nicely with insulation tape or cable ties to prevent interference with the track system.



Overlap Carrier Set

18 INSTALL THE CURTAIN AND TEST AGAIN

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HAVE A GREAT SHOW!

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MAINTENANCE INSTRUCTIONS

- The RTD system has components that must be regularly checked, maintained and replaced in order to ensure safety and keep it in good condition.
- The best way to maintain the RTD system is to use it often. Each mechanical part should be used at least once a week. In this way irregular noises can be discovered in time.
- Do not allow any item to be operated or used if there is any question as to its safety or integrity. Accidents and injuries can be the result. Most accidents are the result of lack of training, complacency and overconfidence. Do not assume anything.
- Follow the schedule outlined below as a minimum maintenance program. Once the operating personnel has had an opportunity to work with the system during the first year, additional procedures may be added or adjusted as is necessary depending on your facility requirements.

During the first six months you need to inspect the tension of the operating line every month.

ITEM	WEEKLY	6 MONTHS
Operate curtain tracks	x	
Listen for unusual carrier noise	x	
Check that the curtain tracks are operating smoothly		x
Inspect condition of operating line		x
Inspect operating line tension*		x
Listen for unusual pulley noise		x
Inspect master carriers and cord clamps		x
Inspect curtain to carrier attachments		x
Inspect track splices for alignment		x
Inspect track channel for debris and remove if required		x
Inspect connections of track to building structure		x

- The above maintenance schedule is recommended for normal operating conditions.
- Within 24 hours of using a recently installed system, confirm that the rope tension is at correct level for curtain movement.
- Above average use or location of curtain track in places with high humidity, dust, extreme temperature changes, etc. may require shorter intervals.
- Take the system down following the same steps and precautions as during installation.

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TROUBLE SHOOTING

The curtain stops moving smoothly

- Check if there are items disturbing the track.
- Check for damage to the track. If found, repair.
- Check that all couplings are lined up without gaps. If necessary, realign.
- Joints between track should not be too loose or too tight to avoid a bowed track.
- Check for damage to runners. If necessary, replace damaged runners.
- If your track has a switching point, check that all parts are lined up correctly. If not, adjust alignment.
- Check for debris on the track or runners, if found, remove carefully.
- If the curtain slides out of the track, check if the end stops are loose or missing. If necessary, tighten or replace.

For more technical assistance please contact your local ShowTex office.

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